

REMARKS

I. Status of Claims

Claims 8-11, 13, 15, and 17-22 are pending in this application, the independent claims being claims 8, 13, 15 and 22. By this Amendment, claim 16 is canceled, claims 8-11, 13, 15 and 17 are amended, and claims 21 and 22 are newly presented.

II. Summary of Office Action

In the Office Action, claims 8-10, 15 and 18-20 were rejected under 35 U.S.C. §102(e), as anticipated by of U.S. Patent No. 6,638,325 (Steinberg), claim 13 was rejected under 35 U.S.C. § 103(a), as unpatentable over U.S. Patent No. 6,297,870 (Nanba) in view of U.S. Patent No. 6,788,322 (Cook), claim 11 was rejected under 35 U.S.C. §103(a), as unpatentable over the Steinberg '325 patent in view of U.S. Patent No. 6,538,692 (Niwa), and claims 16 and 17 were rejected under 35 U.S.C. §103(a), as unpatentable over the Steinberg '325 patent in view of Japanese Patent Document No. JP 09-37125 (Tamura).

Reconsideration and withdrawal of the rejections respectfully are requested in view of the above amendments and the following remarks.

III. Canceled Claims

Without conceding the propriety of the rejections, and solely to advance prosecution of the present application to issue, claim 6 is canceled herein without prejudice to or disclaimer of the subject matter recited therein.

IV. Amended Claims

Without conceding the propriety of the rejections, claims 8-11, 13, 15 and 17 have been amended herein more clearly to recite various novel aspects of the claimed invention, with particular attention to the Examiner's comments. Support for the proposed amendments may be found in the original application. No new matter has been added.

V. Newly Presented Claims

Newly presented claims 21 and 22 have been added to provide Applicant with an additional scope of protection commensurate with the disclosure. No new matter has been added.

VI. Response to Outstanding Rejection

The rejections of claims 8-20 over the cited art respectfully are traversed. The present invention relates to a novel image-capturing device and electronic camera. Independent claims 8, 13 and 15 relate to three aspects of the claimed invention.

A. Claimed Invention

In one aspect, as recited in independent claim 8, the claimed invention relates to an image-capturing device comprising an image sensor that captures a subject image and generates image data, an operation member that is operated to cause the image sensor to capture a subject image and generate image data, a memory, and an image storage control unit. The image storage control unit controls transfer of image data, and is operable in a communication mode, to automatically transfer image data generated by the image sensor to an external device via a communication circuit capable of communicating with the external device to store the image data in the external device, and if the external device is substantially unusable, to transfer the image data generated by the image sensor to the memory, so that the operation member can be operated to capture a next subject image.

In another aspect, independent claim 15 recites similar features with respect to an electronic camera that uses wireless communications.

In another aspect, newly presented independent claim 22 recites similar features with respect to an image-capturing device further comprising a setting unit that sets either the memory or an external device as a storage device where the image data is to be stored.

In each of these aspects (claims 8, 15 and 22), in one operation mode the image storage control unit (1) transfers image data generated by the image sensor to an external device, or (2) transfers image data generated by the image sensor to the memory if the external device is substantially unusable, so that the operation device can be operated to cause the image sensor to capture a new subject image. This image data transfer control feature provides a significant advantage over prior art systems in that it effectively utilizes internal and external memory to save image data of a first subject image and permit capture of a next subject image in a case where the external device is substantially unusable.

In another aspect, as recited in independent claim 13, the image-capturing device comprises an image sensor that captures a subject image and generates image data, a connection unit that electrically, detachably and exclusively connects to a main body of the image capture device either a portable memory or a wireless communication circuit capable of wirelessly communicating with an external device, and an image storage control unit. The image data control unit controls the transfer of image data, to automatically and directly transfer image data generated by the image sensor to the portable memory if the portable memory is connected at the connection unit, and to automatically and wirelessly transfer image data generated by the image sensor to the external device via the wireless communication circuit if the wireless communication circuit is connected at the connection unit.

In this aspect (claim 13), the connection unit is capable of being directly and exclusively connected to either a portable memory or a wireless communication circuit, and the image storage control unit automatically stores image data captured/generated by the image sensor in either the portable memory or in an external device via the wireless communication circuit connected to the connection unit. This image data transfer control

feature provides a significant advantage over prior art systems in that it increases options in an efficient, portable, image-capturing device.

B. Prior Art Distinguished

Applicant submits that the prior art fails to anticipate the claimed invention.

Moreover, Applicant submits there are differences between the subject matter sought to be patented and the prior art, such that the subject matter taken as a whole would not have been obvious to one of ordinary skill in the art at the time the invention was made.

Claims 8-11, 15 and 17-20, and New Claims 21 and 22

The Steinberg '325 patent relates to a camera network communication device, and generally discloses two embodiments of a communication device for connecting a digital camera to a communication network for downloading data to a remote computer. In one embodiment, the Steinberg '325 patent illustrates in Figs. 1-8 and 10-16 a stand-alone communication device for connecting a typical digital camera to a communications network. The Steinberg '325 patent also illustrates in Figs. 9 and 17 an alternative embodiment including an integral digital camera and communication device. However, Applicant submits that the Steinberg '325 patent fails to disclose or suggest at least the above-discussed features of the claimed invention.

In the first embodiment of the Steinberg '325 patent, a digital camera is operated independently to capture subject images and generate and store image data of those subject images. Referring for example to Fig. 14, a separate/independent communications device is attached to the digital camera. The communications device first detects if a camera is connected (box 232), and if so, then determines if the camera memory is 75% full (box 236). If the camera memory is not 75% full, then no image data transfer occurs. If the camera memory is 75% full, then image data is transferred from the camera to the communications device (box 234). The communications device then determines if it is connected to a network

(box 242), and if the network is ready (box 244). If the network is ready, then the communications device transfers the image data to a remote device/memory for storage (box 250). If the network is not ready, then the communications device sits in an endless "NO" loop until the network is ready (box 244).

In the alternative embodiment of the Steinberg '325 patent (Figs. 9 and 17), image data for subject images is captured by an integral digital camera/communications device (box 270), and stored in an internal memory of the device (272) until the available storage in the device is determined to be less than x% of total memory image data storage capacity (box 274), at which time the integral digital camera/communications device determines if the device is connected for external download (box 276), and downloads image data from the memory to a remote destination (280). In this arrangement, if the integral digital camera/communications device determines that it is not connected for download, then the camera/communications device continues in an endless loop searching for a connection for download (box 276).

In each of these embodiments, nowhere does the Steinberg '325 patent disclose or suggest the features of an image-capturing device (or electronic camera) including an image sensor, an operation member, a memory, and an image storage control unit that controls transfer of image data, to automatically transfer image data generated by the image sensor to an external device to store the image data in the external device, and if the external device is substantially unusable, to transfer the image data generated by the image sensor to the (local camera) memory, so that the operation member can be operated to cause the image sensor to capture a next subject image, as disclosed in the present application and variously recited in claims 8, 15 and 22.

The Niwa '692 patent relates to a dynamic storage control method and system, and was cited for its alleged disclosure of an image storage control unit that detects whether or not

a storage capacity of an external device is sufficient, and keeps image data for local storage if the storage capacity of the external device is detected to be insufficient. Without conceding the propriety of the Examiner's characterizations of the Niwa '692 patent, Applicant submits that the Niwa '692 patent fails to disclose or suggest at least the above-discussed features of the claimed invention. Nowhere is the Niwa '692 patent understood to disclose or suggest the features of an image-capturing device (or electronic camera) including an image sensor, an operation member, a memory, and an image storage control unit that controls transfer of image data, to automatically transfer image data generated by the image sensor to an external device to store the image data in the external device, and if the external device is substantially unusable, to transfer image data generated by the image sensor to the (local camera) memory, so that the operation member can be operated to cause the image sensor to capture a next subject image, as disclosed in the present application and variously recited in claims 8, 15 and 22. Nor is the Niwa '692 patent understood to add anything to the Steinberg '325 patent that would make obvious the claimed invention.

The Tamera JP '125 reference relates to a camera, and was cited for its alleged disclosure of a buffer memory that temporarily stores image data, and does not keep image data that has been transferred to an external device. Without conceding the propriety of the Examiner's characterizations of the Tamera 'JP 125 reference, Applicant submits that the Tamura JP '125 reference fails to disclose or suggest at least the above-described features of the claimed invention. Nowhere is the Tamura JP '125 reference understood to disclose or suggest the features of an image-capturing device (or electronic camera) including an image sensor, an operation member, a memory, and an image storage control unit that controls transfer of image data, to automatically transfer image data generated by the image sensor to an external device to store the image data in the external device, and if the external device is substantially unusable, to transfer image data generated by the image sensor to the (local

camera) memory, so that the operation member can be operated to cause the image sensor to capture a next subject image, as disclosed in the present application and variously recited in claims 8, 15 and 22. Nor is the Tamura JP '125 reference understood to add anything to the Steinberg '325 patent and/or the Niwa '692 patent that would make obvious the claimed invention.

Claim 13

The Nanba '870 patent relates to a photographing apparatus, method for recording an image by the photographing apparatus, and method for reproducing an image by the photographing apparatus. The Nanba '870 patent discloses a system including a photographing apparatus (camera) that can transfer an image to an image processing apparatus (PC) with a first recording medium (hard disk HD), or to a second recording medium (memory card 8) detachably provided to the photographing apparatus. Thus, the Nanba '870 patent discloses a photographing apparatus (camera) system including a slot 17 for receiving a memory card 8 (column 3, line19; Fig. 3) and a USB communication I/F 213 (column 6, lines 1-3) for connection with a PC. However, Applicant submits that the Nanba '870 patent fails to disclose or suggest at least the above-discussed features of the claimed invention. Rather, in the Nanba '870 patent, the memory card slot 17 and the USB I/F 213 are provided separately. Nowhere is the Nanba '870 patent understood to disclose or suggest the features of an image-capturing device comprising a connection unit that electrically, detachably and exclusively connects to a main body of the image-capturing device either a portable memory or a wireless communication circuit capable of wirelessly communicating with an external device, and an image storage control unit that controls transfer of image data, to automatically and directly transfer the image data from a buffer memory to a portable memory if the portable memory is connected at the connection unit and to automatically and wirelessly transfer the image data from the buffer memory to the external device via the

wireless communication circuit if the wireless communication circuit is connected at the connection unit, as disclosed in the present application and recited in claim 13.

The Cook '332 patent relates to a wireless imaging device and system, and was cited for its disclosure of a portable device having an image capturing device and a transceiver for transmitting captured image data by wireless communication. Without conceding the propriety of the Examiner's characterizations of the Cook '332 patent, Applicant submits that the Cook '332 patent fails to disclose the above-discussed features of the claimed invention, or remedy the deficiencies of the Nanba '870 patent. Nowhere is the Cook '332 patent understood to disclose or suggest the features of an image-capturing device comprising a connection unit that electrically, detachably and exclusively connects to a main body of the image-capturing device either a portable memory or a wireless communication circuit capable of wirelessly communicating with an external device, and an image storage control unit that controls transfer of image data, to automatically and directly transfer the image data from a buffer memory to a portable memory if the portable memory is connected at the connection unit and to automatically and wirelessly transfer the image data from the buffer memory to the external device via the wireless communication circuit if the wireless communication circuit is connected at the connection unit, as disclosed in the present application and recited in claim 13. Nor is the Cook '332 patent believed to add anything to the Nanba '870 patent that would make obvious these features of the claimed invention.

For the above reasons, Applicant submits independent claims 8, 13, 15 and 22 are allowable over the prior art.

Claims 9-11 and 16-21 depend from independent claims 8 and 15, and are believed allowable for the same reasons. Moreover, each of these dependent claims recites additional features in combination with the features of its respective base claim, and is believed

allowable in its own right. Individual consideration of the dependent claims respectfully is requested.

VII. Conclusion

Applicant believes the present Amendment is responsive to each of the points raised by the Examiner in the Office Action, and respectfully submit that this application is in condition for allowance. Reconsideration of the claims and passage to issue of the subject application at the Examiner's earliest convenience earnestly are solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,

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Attachments:

Request for Continued Examination
Amendment Transmittal

MAC:CPW/eks

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